



INVESTIGATOR'S ANNUAL REPORT

United States Department of the Interior
National Park Service

All or some of the information you provide may become available to the public.

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Reporting Year: 2008	Park: Shenandoah NP	Select the type of permit this report addresses: Scientific Study	
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Project Title (maximum 300 characters): Adopt-an-Outcrop Volunteer Monitoring Program			
Park-assigned Study or Activity #: SHEN-00358	Park-assigned Permit #: SHEN-2008-SCI-0018	Permit Start Date: Nov 04, 2008	Permit Expiration Date: Dec 31, 2008
Scientific Study Starting Date: Jun 01, 2008		Estimated Scientific Study Ending Date: Dec 31, 2008	
For either a Scientific Study or a Science Education Activity, the status is: Continuing		For a Scientific Study that is completed, please check each of the following that applies: <input type="checkbox"/> A final report has been provided to the park or will be provided to the park within the next two years <input type="checkbox"/> Copies of field notes, data files, photos, or other study records, as agreed, have been provided to the park <input type="checkbox"/> All collected and retained specimens have been cataloged into the NPS catalog system and NPS has processed loan agreements as needed	
Activity Type:			

Monitoring

Subject/Discipline:

Plant Communities (Vegetation)

Purpose of Scientific Study or Science Education Activity during the reporting year (maximum 4000 characters):

The purpose of the Adopt-an-Outcrop program is to provide additional monitoring of rare plant populations and communities at rock outcrops threatened by high visitor use and/or invasive species encroachment.

Findings and status of Scientific Study or accomplishments of Science Education Activity during the reporting year (maximum 4000 characters):

In 2008 funding from the NPS Centennial Initiative was used to support establishment of a volunteer program to support rock outcrop monitoring and protection. This program, dubbed the Adopt-an-Outcrop (AOP) program, was designed to help limit human trampling of rock outcrop sites, and provide monitoring data to track changes in rare plant population cover, health, and threats. To that end, funding was used to hire a seasonal biological science technician, and to purchase radios, cameras, field gear, uniform items, and to print monitoring manuals.

Planning for the Adopt-an-outcrop program began in February 2009 and progressed to intensive work by vegetation program staff in June to documented monitoring sites, write field methods, and produce a volunteer guide. The field portion of the program began in July with 26 volunteers, many of whom were from the Old Rag Master Naturalists Program. This committed group of volunteers spent from 4 to 8 hours per month visiting their field monitoring sites to collect data on rare plants, talk with visitors, pick up trash, and maintain signs and barriers. Minimizing impact to the sensitive plant communities on cliff areas is one of the primary concerns of the program. Therefore, detailed monitoring is done only twice a year. Other site visits focus on visitor education, barrier and sign repair, and trash removal.

The plant monitoring data collected by AOP volunteers focuses on a series of photopoints. These images will allow park staff to observe changes in the cover and health of the rare plants over time. Among other things, data are also being collected on the area covered by each rare plant, plant characteristics, and the proximity of invasive plants to rare plant populations. One program participant is currently working with the Park's data manager to develop an MS Access database for the program.

A particularly useful aspect of the program is the way it increases the presence of uniformed personnel on rock outcrops. This gives visitors more opportunities to ask questions and learn about rock outcrop conservation issues, and may help deter unwanted behaviors.

In 2008 the program used a total of 26 volunteers, who collectively contributed 443 volunteer hours to the park.

For Scientific Studies (not Science Education Activities), were any specimens collected and removed from the park but not destroyed during analysis?

No

Funding specifically used in this park this reporting year that was provided by NPS (enter dollar amount):

\$27500

Funding specifically used in this park this reporting year that was provided by all other sources (enter dollar amount):

\$0

List any other U.S. Government Agencies supporting this study or activity and the funding each provided this reporting year:

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to average 1.625 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the forms. Direct comments regarding this burden estimate or any aspect of this form to Dr. John G. Dennis, Natural Resources (3127 MIB), National Park Service, 1849 C Street, N.W., Washington, DC 20240.